

U.S. Patent Application Serial No. 09/926,697  
Amendment filed April 4, 2007  
Reply to OA dated October 11, 2006

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

**Please cancel claims 1-22 in their entirety.**

**Please add new claims 23-52.**

Claim 23 (New): A computer program embodied on a computer readable medium and executable by a computer for evaluating and improving oral health utilizing a risk improvement table to determine overall risk of oral disease and optimum avoidance measures, comprising:

a risk estimation processing part to determine individual risk factors and said overall risk of oral disease using items contained in said risk improvement table, said items being obtained on a plurality of question items and a plurality of examination items obtained during one or more examination sessions; and

a risk avoidance measure presentation processing part to identify measures to reduce the overall risk determined by said risk estimation processing part based on said individual risk factors,

wherein said individual risk factors contained in said risk improvement table include individual factors, state of oral hygiene, oral hygiene habits, awareness of oral hygiene, general health care awareness, morphology of teeth, and factors related to the saliva.

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Claim 24 (New): The computer program recited in claim 23, wherein said examination items are conducted with a dentist or a dental hygienist.

Claim 25 (New): The computer program recited in claim 23 or claim 23, wherein said risk estimation processing part, further comprises:

a judgement criteria part to determine a relationship between the overall risk and a possibility of a targeted disease being contracted or progressing.

Claim 26 (New): The computer program recited in claim 25, wherein said risk estimation processing part, further comprises:

an overall risk display part to display said overall risk and risk avoidance measures in order to encourage and evoke preventative action from a test subject.

Claim 27 (New): The computer program recited in claim 26, wherein said overall risk display part displays said overall risk and risk avoidance measures in a multi-level format.

Claim 28 (New): The computer program recited in claim 26, wherein said overall risk is designated as high, medium or low.

Claim 29 (New): The computer program recited in claim 23, wherein said risk estimation

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processing part is created by identifying principal risk factors for a targeted oral disease, eliminating said identified risk factors that are known to be correlated to other risk factors, calculating risk values which are rates of contribution to disease outbreak, establishing a relationship between an overall value of the risk values for the plurality of risk factors and the state of progression of the oral disease, and identifying said question items said examination items.

Claim 30 (New): The computer program recited in claim 23, wherein said risk estimation processing part is created by identifying principal risk factors for a targeted oral disease, eliminating said identified risk factors that are known to be correlated to other risk factors, calculating risk values, which are rates of contribution to disease outbreak, establishing a relationship between an overall value of the risk values for the plurality of risk factors and the state of progression of the oral disease, identifying said question items and examination items necessary for judging whether a test subject has the risk factors, replacing the question items and examination items that are unsuitable for implementation in a clinical setting with other items, implementing a question-based examination and an oral cavity examination as indicated by said risk improvement table on each test subject, applying examination results to the risk estimation processing part of said risk improvement table, working out a risk value for each risk factor identified objectively, calculating an overall risk value, and generating risk improvement tools corresponding to risk avoidance measures.

Claim 31 (New): A method of evaluating and improving oral health utilizing a risk

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improvement table to determine overall risk of oral disease and optimum avoidance measures comprising:

generating a risk estimation processing part of said risk improvement table that determines individual risk factors and said overall risk of oral disease using items obtained based on a plurality of question items and a plurality of examination items obtained during one or more examination sessions; and

utilizing a risk avoidance measure presentation processing part to identify measures to reduce the overall risk determined by said risk estimation processing part based on said individual risk factors,

wherein said individual risk factors contained in said risk improvement table include individual factors, state of oral hygiene, oral hygiene habits, awareness of oral hygiene, general health care awareness, morphology of teeth, and factors related to saliva.

Claim 32 (New): The method recited in claim 31, wherein said examination items are conducted with a dentist or a dental hygienist.

Claim 33 (New): The method recited in claims 31 or 32, wherein said generating the risk estimation processing part, further comprises:

utilizing a judgement criteria part to determine a relationship between the overall risk and a possibility of a targeted disease being contracted or progressing.

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Claim 34 (New): The method recited in claim 33, wherein said generating the risk estimation processing part further comprises:

executing an overall risk display part to display said overall risk and risk avoidance measures in order to encourage and evoke preventative action from a test subject.

Claim 35 (New): The method recited in claim 34, wherein said overall risk display part displays said overall risk and risk avoidance measures in a multi-level format.

Claim 36 (New): The method recited in claim 34, wherein said overall risk is designated as high, medium or low.

Claim 37 (New): The method recited in claim 31, wherein said risk estimation processing part is created by comprising the steps of:

identifying principal risk factors for a targeted oral disease;  
eliminating said identified risk factors that are known to be correlated to other risk factors;  
calculating risk values which are rates of contribution to disease outbreak;  
establishing a relationship between an overall value of the risk values for the plurality of risk factors and the state of progression of the oral disease, and  
identifying said question items said examination items.

Claim 38 (New): The method recited in claim 31, wherein said risk estimation processing part is created by comprising the steps of:

- identifying principle risk factors for a targeted oral disease;
- eliminating said identified risk factors that are known to be correlated to other risk factors;
- calculating risk values, which are rates of contribution to disease outbreak;
- establishing a relationship between an overall value of the risk values for the plurality of risk factors and the state of progression of the oral disease;
- identifying said question items and examination items necessary for judging whether a test subject has the risk factors;
- replacing the question items and examination items necessary that are unsuitable for implementation in a clinical setting with other items;
- implementing a question-based examination and an oral cavity examination as indicated by said risk improvement table on each test subject;
- applying examination results to the risk estimation processing part of said risk improvement table;
- working out a risk value for each risk factor identifying objectively;
- calculating an overall risk value; and
- generating risk improvement tools corresponding to risk avoidance measures.

Claim 39 (New): An oral risk care management system for evaluating and improving oral

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health utilizing a risk improvement table to determine overall risk of oral disease and optimum avoidance measures, comprising:

a risk estimation processing part to determine individual risk factors and said overall risk of oral disease using items contained in said risk improvement table, said items being obtained based on a plurality of question items and a plurality of examination items obtained during one or more examination sessions; and

a risk avoidance measure presentation processing part to identify measures to reduce the overall risk determined by said risk estimation processing part based on said individual risk factors,

wherein said individual risk factors contained in said risk improvement table include individual factors, states of oral hygiene, oral hygiene habits, awareness of oral hygiene, general health care awareness, morphology of teeth, and factors related to saliva.

Claim 40 (New): The oral risk care management system recited in claim 39, wherein said examination items are conducted with a dentist or a dental hygienist.

Claim 41 (New): The oral risk care management system recited in claims 39 or 40, wherein said risk estimation processing part, further comprises:

a judgement criteria part to determine a relationship between the overall risk and a possibility of a targeted disease being contracted or progressing.

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Claim 42 (New): The oral risk care management system recited in claim 41, wherein said risk estimation processing part, further comprises:

an overall risk display part to display said overall risk and risk avoidance measures in order to encourage and evoke preventative action from a patient.

Claim 43 (New): The oral risk care management system recited in claim 42, wherein said overall risk display part displays said overall risk and risk avoidance measures in a multi-level format.

Claim 44 (New): The oral risk care management system recited in claim 42, wherein said overall risk is designated as high, medium or low.

Claim 45 (New): The oral risk care management system recited in claim 39, wherein said risk estimation processing part is created by identifying principal risk factors for a targeted oral disease, eliminating said identified risk factors that are known to be correlated to other risk factors, calculating risk values which are rates of contribution to disease outbreak, establishing a relationship between an overall values of the risk values for the plurality of risk factors and the state of progression of the oral disease, and identifying said question items said examination items.

Claim 46 (New): The oral risk care management system recited in claim 39, wherein said risk



estimation processing part is created by identifying principal risk factors for a targeted oral disease, eliminating said identified risk factors that are known to be correlated to other risk factors, calculating risk factors, which are rates of contribution to disease outbreak, establishing a relationship between an overall values of the risk values for the plurality of risk factors and the states of progression of the oral disease, identifying said question items and examination items necessary for judging whether a test subject has the risk factors, and replacing the question items and examination items that are unsuitable for implementation in a clinical setting with other items, implementing a question-based examination and an oral cavity examination as indicated by said risk improvement table on each test subject, applying examination results to the risk estimation processing part of said risk improvement table, working out risk value for each risk factor identified objectively, calculating an overall risk value, and generating risk improvement tools corresponding to risk avoidance measures.

Claim 47 (New): An oral disease risk improvement sheet comprising a risk estimation processing part and a risk avoidance measure presentation processing part, wherein said risk estimation processing part has:

a data gathering part provided with an examination item display section that displays a plurality of risk factors and means for examining the presence/absence or current state of the risk factors, and an answers section corresponding to the examination item display section;

a judgement criteria part provided with a risk value judgement criteria section that stipulates

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an unequivocal correlation between the answers and preset risk values;

a risk judgement part provided with a judgement section for recording the risk values for the risk factors converted from the answers based on the risk value judgement criteria section and calculating an overall risk value by arithmetic processing; and

an overall risk display part provided with an overall risk judgement criteria section that unequivocally stipulates an overall risk allocated to one of a plurality of preset levels from the overall risk value.

Claim 48 (New): The oral disease risk improvement sheet recited in claim 44, wherein said overall risk display art is provided with;

an overall risk judgement criteria section that unequivocally stipulates an overall risk allocated to one of a plurality of preset levels from the overall risk value,

an overall risk display section that displays an overall risk showing a risk level of an examinee, and

an explanation section that explains the risk level.

Claim 49 (New): The oral disease risk improvement sheet recited in claim 47, wherein said risk avoidance measure presentation processing part is provided with a risk avoidance measure display part and an improvement possibility display part.

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Claim 50 (New): The oral disease risk improvement sheet recited in claim 47, wherein said risk avoidance measure display part is provided with;

a risk avoidance measure presentation criteria section in which are shown the necessity of re-examination and the time of re-examination (recall judgement),

a guidance display section in which are displayed guidance contents for guiding lifestyle habits so as to reduce the risk, and

a means display section in which are displayed means necessary for carrying out the risk improvement in accordance with a guidance of said guidance display section.

Claim 51 (New): A risk care set, comprising;

an oral disease risk improvement sheet recited in any one of claims 47 to 50, and

a risk improvement tools including guidance tools comprising any one of videos, CDs, cassette tapes, panels, books, computer software containing guidance on improving eating habits and brushing guidance used for the purpose of teaching knowledge and increasing awareness with regard to oral hygiene, diseases, and/or products for the oral cavity comprising any one of the mouthwashes, sprays, foams, gels, tablets, chews, capsules, gum, foods, toothbrushes, interdental brushes, dental floss, and irrigators.

Claim 52 (New): A risk care business system, comprising:

an oral disease risk improvement sheet recited in any one of claims 47 to 50,

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examination means for implementing a question-based examination and an oral cavity examination as indicated by said risk improvement table on each test subject;

calculating means for applying examination results to the “risk estimation” processing part of said risk improvement table, working out a risk value for each risk factor judged objectively, and calculating an overall risk value; and

a risk improvement tools including guidance tools comprising any one of videos, CDs, cassette tapes, panels, books, computer software containing guidance on improving eating habits and brushing guidance used for the purpose of teaching knowledge and increasing awareness with regard to oral hygiene, diseases, and/or products for the oral cavity comprising any one of the mouthwashes, sprays, foams, gels, tablets, chews, capsules, gum, foods, toothbrushes, interdental brushes, dental floss, and irrigators.